Metadata for Isle Royale National Park, Field Plots Data Base for Vegetation Mapping

Identification_Information:
Citation:
Citation_Information:
Originator: U.S. Geological Survey Department of the Interior
Publication_Date: 199808
Title: Isle Royale National Park, Field Plots Data Base for Vegetation Mapping
Geospatial_Data_Presentation_Form: Database
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program
Issue_Identification: Isle Royale National Park
Publication_Information:
Publication_Place: Denver, CO
Publisher: USGS, Biological Resources Division, Center for Biological Informatics
Other_Citation_Details:
Created in part by Environmental Systems
Research Institute, Inc. Redlands,
CA under contract from USGS/BRD/CBI.
Online_Linkage: http://biology.usgs.gov/npsveg/isro/fielddata.html
Description:
Abstract:
Vegetation field plots at Isle Royale National Park were visited, described, and documented in a digital database. The database consists of 2 parts - (1) Physical Descriptive Data and (2) Species Listings.
Purpose:
The vegetation plots were used to describe the vegetation in and around Wind Cave National Park and to assist in developing a final mapping classification system.

Provide National Parks with the necessary tools to effectively manage their natural resources. Plot data are collected and analyzed to develop a classification (using the Standardized National Vegetation Classification System) and description of vegetation types in preparation for photointerpretation and mapping of the Park's vegetation types.
Supplemental_Information:
Isle Royale National Park was authorized on March 3, 1931; it was formally established in 1940, and officially dedicated in 1946. Most of the park's land area (98%) was designated as a Wilderness area in October 1976, and later additions increased the total Wilderness to 99% of the park. The park was designated an International Biosphere Reserve in 1980.
Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 199706
Ending_Date: 199709
Currentness_Reference:
Ground Condition
and as written in report:
Plot sampling was conducted from June 4, 1997 to September 23, 1997.
Status:
Progress: Complete
Maintenance_and_Update_Frequency: none planned
Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate: -89.125

East_Bounding_Coordinate: -88.4
North_Bounding_Coordinate: 48.2
South_Bounding_Coordinate: 47.8
Description_of_Geographic_Extent:
Isle Royale National Park, Michigan and environs. Isle Royale National Park is an archipelago of islands located in the northwestern region of Lake Superior close to the United States-Canada border. The park is located about 60 miles northwest of Michigan's Keweenaw Peninsula, about 22 miles east of Grand Portage, Minnesota, and about 35 miles southeast of Thunder Bay, Ontario.
Keywords:
Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: National Park Service
Theme_Keyword: U.S. Geological Survey
Theme_Keyword: The Nature Conservancy
Theme_Keyword: Aerial Information Systems
Theme_Keyword: Environmental System Research Institute
Theme_Keyword: association
Theme_Keyword: vegetation classification
Theme_Keyword: sampling plots
Theme_Keyword: alliance
Theme_Keyword: land cover
Theme_Keyword: vegetation
Theme_Keyword: community
Theme_Keyword: land use
Theme_Keyword: vegetation plots
Place:
Place_Keyword_Thesaurus: None
Place_Keyword: Michigan
Place_Keyword: Lake Superior
Place_Keyword: Isle Royale National Park
Taxonomy:
Keywords/Taxon:
Taxonomic_Keyword_Thesaurus: None
Taxonomic_Keywords: vegetation classification
Taxonomic_Keywords: Standardized National Vegetation Classification System
Taxonomic_Keywords: alliance
Taxonomic_Keywords: community association
Taxonomic_Keywords: plant communities
Taxonomic_System:
Classification_System/Authority:
Classification_System_Citation:
Citation_Information:
Originator:
United States Department of the Interior, National Biological Survey and National Park Service
Publication_Date: 19941101
Title: Standardized National Vegetation Classification System
Edition: Version 1
Geospatial_Data_Presentation_Form: Document - Classification System
Series_Information:
Series_Name: NBS/NPS Vegetation Mapping Program
Issue_Identification: Final Draft
Publication_Information:
Publication_Place: Redlands, California
Publisher: ESRI
Other_Citation_Details: Created under contract to the USGS-BRD-CBI by The Nature Conservancy.
Taxonomic_Procedures:

Vegetation associations were identified; no specimens nor vouchers were collected as a part of this process.
Taxonomic_Completeness:
Conforms with FGDC standardized vegetation classification system.
Taxonomic_Classification:
Taxon_Rank_Name: Kingdom
Taxon_Rank_Value: Plantae
Applicable_Common_Name: plants
Access_Constraints: None
Use_Constraints:
Any person using the information presented here should fully understand the data collection and compilation procedures, as described in these metadata, before beginning analyses. The burden for determining fitness for use lies entirely with the user. For purposes of publication or dissemination, citations or credit should be given to the U.S. Geological Survey and the National Park Service.
Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Organization:
USGS Biological Resources Division, Center for Biological Informatics
Contact_Position: Geospatial Technology Specialist
Contact_Address:
Address_Type: Physical Address
Address: U.S. Geological Survey, Biological Resources Division
Address: Center for Biological Informatics
Address: Building 810, Room 8000
City: Denver
State_or_Province: Colorado
Postal_Code: 80225-0046
Country: USA
Contact_Address:
Address_Type: Mailing Address
Address: U.S. Geological Survey, Biological Resources Division
Address: Center for Biological Informatics
Address: PO BOX 25046, DFC, MS302
City: Denver
State_or_Province: Colorado
Postal_Code: 80225-0046
Country: USA
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: 303-202-4229
Contact_Facsimile_Telephone: 303-202-4219 (org)
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Browse_Graphic:
Browse_Graphic_File_Name: <http://biology.usgs.gov/npsveg/isro/images/isroplot.jpg>
Browse_Graphic_File_Description: Locations of vegetation plot samples; low resolution for web browsing.
Browse_Graphic_File_Type: JPG
Cross_Reference:
Citation_Information:
Originator: U.S. Geological Survey, Department of the Interior
Publication_Date: 19990909
Title: Isle Royale National Park, Plot Database
Geospatial_Data_Presentation_Form: Database
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program

Issue_Identification: Isle Royale National Park
Publication_Information:
Publication_Place: Denver, CO
Publisher:
USGS, Biological Resources Division, Center for Biological Informatics
Other_Citation_Details:
Created in large part by Environmental Research Institute, Inc. Redlands, CA under contract from USGS/BRD/CBI.
Online_Linkage: http://biology.usgs.gov/npsveg/isro/fielddata.html
Cross_Reference:
Citation_Information:
Originator: U.S. Geological Survey, Department of the Interior
Publication_Date: 200009
Title: Isle Royale National Park, Accuracy Assessment
Geospatial_Data_Presentation_Form: Database
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program
Issue_Identification: Isle Royale National Park
Publication_Information:
Publication_Place: Denver, CO
Publisher:
USGS, Biological Resources Division, Center for Biological Informatics
Other_Citation_Details:
Created in large part by Environmental Systems Research Institute, Inc., Redlands, CA under contract from USGS/BRD/CBI.
Online_Linkage: http://biology.usgs.gov/npsveg/isro/methods.pdf#assessment

Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report:
Physical description - Descriptive plot data were collected for 182 sites whose vegetation represents a full spectrum of alliance types present within Isle Royale National Park and its immediate surroundings. Attributes collected for each site include: a unique plot identification code, park name, quad name, UTM coordinates, UTM projection, plot survey date, surveyor's name, length, width, photo type, elevation, slope aspect, topographic position, landform, surface geology, Cowardin System category, hydrology, surface material description, soil texture, soil drainage, leaf phenology, leaf type, and physiognomy. Species - Descriptive plot data were collected for 182 sites whose vegetation represents a full spectrum of alliance types present within Isle Royale National Park. Species - this database, is the second of two databases containing plot field data, delineates species and stratum information. Individual species described at each of 182 plots is listed, one line per species, with the following information: Plot Identification Code, Numeric Species Code, Species Name, Species Cover Plantcode, and Strata Code, height, cover, and an alpha-numeric strata code.
Logical_Consistency_Report:
Physical description - Entries for each of the listed attributes are in the form of consistent groupings of either textual or numerical descriptors. Species - Entries for each of the listed attributes are in the form of consistent groupings of either textual or numerical descriptors, as defined above under "Attribute Accuracy Report".
Completeness_Report:
Physical description - Descriptive entries for each of the 182 plots are complete for each of the applicable attributes listed in the database. Species - One species is entered per line, by plot code, with multiple species listed for each plot, one per row. Plot codes and species names are complete for each row, but some species codes, cover and strata information is missing (because it was not present on the original field forms).
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report:

X,Y UTM coordinates representing each of the 71 plots were collected via GPS under selective availability with post processing for differential correction. The differentially correted GPS coordinates have accuracies in the X and Y direction of +/- 2 to 5 meters.
Vertical_Positional_Accuracy:
Vertical_Positional_Accuracy_Report:
Elevations for plots were obtained from the USGS 24,000 quad maps for Isle Royale, and are estimated to be +/- 15 m.
Lineage:
Methodology:
Methodology_Type: Field
Methodology_Identifier:
Methodology_Keyword_Thesaurus: None
Methodology_Keyword: releve
Methodology_Keyword: plot
Methodology_Keyword: sampling
Methodology_Description: Field sampling using releve plots
Source_Information:
Source_Citation:
Citation_Information:
Originator:
National Biological Survey (Now USGS/Biological Resources Division)
Originator: and National Park Service
Publication_Date: 199411
Title:
Standardized National Vegetation Classification System; protocol document for the USGS-NPS Vegetation mapping Program
Geospatial_Data_Presentation_Form: protocol document
Edition: Final Draft
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program
Issue_Identification: Protocol documents
Publication_Information:
Publication_Place: Denver, CO
Publisher: USGS/BRD, Center for Biological Informatics
Other_Citation_Details:
Report prepared under contract by The Nature Conservancy, 1815 N. Lynn Street, Arlington, Virginia 22209 and Environmental Systems Research Institute, 380 New York Street, Redlands, California 92373
Online_Linkage: http://biology.usgs.gov/npsveg/classification/index.html
Type_of_Source_Media: Online
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 199411
Ending_Date: 2010
Source_Currentness_Reference: Publication Date and indefinitely
Source_Citation_Abbreviation: SNVCS protocol document
Source_Contribution:
This document describes and defines the vegetation classification system which is to be used for describing and mapping the vegetation at Isle Royale National Park
Source_Information:
Source_Citation:
Citation_Information:
Originator: USGSBRD, Center for Biological Informatics
Publication_Date: 20000909
Title:

Classification of the Vegetation of Isle Royale National Park
Geospatial_Data_Presentation_Form: isro classification document
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program
Issue_Identification: Isle Royale National Park
Publication_Information:
Publication_Place: Denver, CO
Publisher: USGS/BRD, Center for Biological Informatics
Other_Citation_Details:
This report was generated by The Nature Conservancy under contract to the USGS/BRD, Center for Biological Informatics
Online_Linkage: http://biology.usgs.gov/npsveg/isro/methods.pdf
Type_of_Source_Media: Online
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 199706
Ending_Date: 199709
Source_Currentness_Reference: Ground Condition, summer 1997
Source_Citation_Abbreviation: isro sample and classification
Source_Contribution: Report summarizing plot data collection effort
Source_Information:
Source_Citation:
Citation_Information:
Originator:
United States Dept. of the Interior, National Biological Survey (now USGS Biological Resources Division) and the National Park Service
Publication_Date: 199412
Title: Field Methods for Vegetation Mapping
Geospatial_Data_Presentation_Form: report
Publication_Information:
Publication_Place: Denver, CO
Publisher:
USGS/Biological Resources Division, Center for Biological Informatics
Other_Citation_Details:
This report was generated by The Nature Conservancy under contract to the USGS/BRD, CBI
Online_Linkage: http://biology.usgs.gov/npsveg/fieldmethods/index.html
Type_of_Source_Media: Online
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 199412
Ending_Date: 2010
Source_Currentness_Reference: Publication Date and indefinitely
Source_Citation_Abbreviation: field methods protocol document
Source_Contribution:
This document defines the methods and protocols for field data collection to be used as part of the USGS-NPS Vegetation Mapping Program
Process_Step:
Process_Description:
The following describes the tasks performed by The Nature Conservancy to produce descriptive data for 182 vegetation sampling plots in two separate database files. The second of the three contains listings of individual species found in each plot, along with height and cover estimates, and strata delineations. The SPECIES LISTING database contains line entries for each species including the Plot Code, Numeric species code, full scientific species name, cover estimate, a unique alphnumeric species identifier (plant code), listings of individual strata found in each plot,

along with cover estimates and height (strata) delineations. The STRATA LISTING database contains line entries for each strata including the Plot Code, full species name, height, cover, and Strata delineation. Plot sites were selected subjectively because of the heterogeneity of the vegetation and the small number of samples per type. Since aerial photos were not available at the time of plot selection, visual reconnaissance was conducted at the summit of the bluff to examine vegetation patterns for the purpose of plot placement. Plot data were manually recorded on field forms on-site, and subsequently keyed into the database files described herein. Information in the plot database was then used to develop the classification system and plant identification keys contained in the ISLE ROYALE SAMPLING AND CLASSIFICATION REPORT.
Process_Date: 19990909
Source_Used_Citation_Abbreviation: SNVCS protocol document
Source_Used_Citation_Abbreviation: Field Methods for Vegetation Mapping
Source_Produced_Citation_Abbreviation: isro sample and classification
Source_Produced_Citation_Abbreviation: isro Vegetation Descriptions
Process_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Jim Drake
Contact_Organization: The Association for Biodiversity Information
Contact_Position: Vegetation Program Manager
Contact_Address:
Address_Type: Physical Address
Address: 1313 5th Street SE
Address: Suite 314
City: Minneapolis
State_or_Province: MN
Postal_Code: 55414
Country: USA
Contact_Voice_Telephone: 612-331-0729
Contact_Electronic_Mail_Address: jdrake@abi.org
Cloud_Cover: 0

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: vector

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Planar:
Grid_Coordinate_System:
Grid_Coordinate_System_Name: Universal Transverse Mercator
Universal_Transverse_Mercator:
UTM_Zone_Number: 16
Transverse_Mercator:
Longitude_of_Central_Meridian: -105
Latitude_of_Projection_Origin: 0
False_Easting: 500000
False_Northing: 0
Scale_Factor_at_Central_Meridian: .9996
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: Coordinate pair
Coordinate_Representation:
Abscissa_Resolution: 100
Ordinate_Resolution: 100
Planar_Distance_Units: Meters
Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983
Ellipsoid_Name: Geodedic Reference System 80
Semi-major_Axis: 6378137
Denominator_of_Flattening_Ratio: 298.257

Entity_and_Attribute_Information:
Overview_Description:
Entity_and_Attribute_Overview:
Each of 182 vegetation plots has attributes for physical description, species and strata. Physical description - (Plot number, plot code, common name, scientific name, state, park name, quad name, utm zone, map project, gps file, raw utm x, raw utm y, corrected utm x, corrected utm y, surveyors date, surveyors, length, width, photos, permenant, elevation, slope, aspect, topographical position, landform, surficial geology, cowardin system type, hydrography, bedrock, large rock, small rock, sand, litter duff, wood, bare soil, other soil, soil texture, soil drainage, leaf phenology, leaf type, and physiololgy). Species - (sp_code is a project specific code for each species found, species is the scientific name for that species, spcover is the species present and the percent cover for each species, plant code is the first two letters of the genus and first two letters of the species. If the code are not unique a number is added to make the code unique). Strata - (height and cover are average percent cover of that particular species, 1 = 0-10%, 2 = 10-25%, 3 = 25-60% and 4 = 60-100%, pstrata is the type of vegetation, T1 = emergent, T2 = canopy, T3 = sub-canopy, S1 = tall shrub, S2 = short shrub, H = herbaceous, N = non-vascular, V = vine/liana, and E = epiphyte).
Entity_and_Attribute_Detail_Citation:
Field Methods for Vegetation mapping, December 1994. Prepared for: the United States Department of the Interior, National Biological Survey (now the USGS Biological Resources Division) and the National Park Service. Prepared by: The Nature Conservancy, and Environmental Systems Research Institute. (http://biology.usgs.gov/npsveg/fieldmethods/index.html).

Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Organization: USGS/BRD, Center for Biological Informatics
Contact_Position: Geospatial Technology Specialist
Contact_Address:
Address_Type: Physical Address
Address: USGS Biological Resources
Address: Center for Biological Informatics
Address: Denver Federal Center, Building 810
Address: Room 8000, MS302
City: Denver
State_or_Province: CO
Postal_Code: 80225-0046
Country: USA
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: 303-202-4229
Contact_Facsimile_Telephone: 303-202-4219 (org)
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Resource_Description: ISRO Plots Data
Distribution_Liability:
Although these data have been processed successfully on a computer system at the Biological Resources Division, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. This disclaimer applies both to individual use of the data and aggregate use with other data. It is strongly recommended that these

data are directly acquired from a Biological Resources Division server, and not indirectly through other sources which may have changed the data in some way. It is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data. The Biological Resources Division shall not be held liable for improper or incorrect use of the data described and/or contained herein.
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: HTML
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name: http://biology.usgs.gov/npsveg/isro/fielddata.html
Fees: None

Metadata_Reference_Information:
Metadata_Date: 20010222
Metadata_Review_Date: 20050519
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Address:
Address_Type: mailing and physical address
Address:
U.S. Geological Survey, Center for Biological Informatics, MS 302,
Room 8000, Building 810, Denver Federal Center
City: Denver
State_or_Province: Colorado
Postal_Code: 80225
Country: USA
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: (303) 202-4219
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Metadata_Standard_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1: Biological Data Profile, 1999
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Extensions:
Online_Linkage: http://biology.usgs.gov/fgdc.bio/bionwext.txt
Profile_Name: Biological Data Profile FGDC-STD-001.1-1999